

ABSTRACT

Electromagnetic propulsion device as a gun or reversible electric motor having a barrel with a cavity extending its length, an armature in said cavity with a permanent magnetic or energized propulsion bus coil, a plurality of wall conductors orthogonal and circumscribing the cavity distributed between the cavity ends with contact means at the cavity on one end and a bus common with all wall conductors on the other and wherein the magnetic fields of the barrel wall conductor coils immediately before and after the magnetic field source in an armature interacts therewith effecting armature motion. Forward and aft armature current shunts direct current from barrel rails to and from the armature coil with associated propulsion bus-aft shunt circuit means, when extant, and to and from said armature propelling wall conductors via said contacts.